

REVISION OF THE AUSTRALIAN VITACEAE, 4. *CLEMATICISSUS* PLANCHON

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Summary

Clematicissus angustissima (F. Muell.) Planchon, endemic in the Geraldton area of Western Australia and the only species in the genus, is redescribed and figured.

CLEMATICISSUS

Clematicissus Planchon in A. & C. DC., Monogr. phan. 5: 422 (1887). Type: *C. angustissima* (F. Muell.) Planchon

This monotypic genus is endemic in the Irwin District of Western Australia.

Clematicissus angustissima (F. Muell.) Planchon in A. & C. DC., Monogr. phan. 5: 422 (1887); *Vitis angustissima* F. Muell., Fragm. 1: 141 (1859). Type: Murchison River, Oldfield (holo: MEL(MEL5348); iso: MEL(MEL5349), K).
F. Muell., Fragm. 1: 244 (1859), 9: 126 (1875); Benth., Fl. austral. 1: 450 (1863).

Deciduous vine or sprawling shrub to 2 m high, branches thin, striate, glabrous. Plants deciduous, numerous tubers present. Mucilage cells and raphide sacs common throughout. Tendrils leaf-opposed, usually bifid; branch or aborted branch subtended by a bract. Leaves palmately compound (3–)5(–7)-foliolate, glabrous. Central leaflet from linear-lanceolate to broadly lanceolate, (2.1–)4.5(–6.3) cm × (0.15–)0.4(–1.2) cm; apex acute; base attenuated. Lateral leaflets similar but proportionally smaller. Margins entire to deeply indented. Petiole slender, (0.8–)1.5(–2.8) cm long; petiolules often absent. Stipules rounded, membranous, 1.5–2 mm × 1–1.5 mm. Inflorescence leaf-opposed, cymose, multiflowered in congested heads which terminate one or both branches of the tendril; peduncles and pedicels subtended by prominent membranous bracts. Flowers bisexual, pentamerous. Calyx shortly 5-lobed, 0.5–1 mm long, membranous. Corolla with 5 free lobes weakly cohering in bud; lobes reflexed after anthesis, soon caducous, greenish white to mustard yellow, 1.5–2 mm long. Stamens inserted on the receptacle at the base of the disc, opposite the petals; filaments erect, flattened, tapering towards the apex, 0.75–1 mm long; anthers ovate, introrse, opening by longitudinal slits, ca 0.75 mm long. Pollen grains tricolporate. Disc adnate to and entirely surrounding the base of the ovary, broad; edge often spreading, pressure grooves formed by the filaments. Ovary 2-locular with 2 anatropous, basally attached ovules per locule; style conical, stigma capitate. Berry fleshy, globular to depressed-globular, purplish black to black at maturity, 7–10 mm × 4–8 mm, with 1 or 2(–4) pyriform seeds. Shape of seeds in transverse section varies according to the number maturing in the fruit. Seeds 5.5–7 mm × 3.5–4 mm; perichalaza extends to the dorsal surface where it forms a rounded depression. Endotesta irregularly lignified, endosperm ruminant, in transverse section U-shaped. Cotyledons similar, broadly lanceolate, persisting for up to twelve months whilst tubers are forming. Figs 1–5.

Representative specimens: Western Australia. IRWIN DISTRICT: Red Bluff ca 5 km S of Kalbarri, May 1968, Wilson 6517 (AD,K,PERTH); Northampton, Sep 1926, Gardner 1964 (PERTH); Greenough River, Yuna East Reserve, 70 km NE of Geraldton, Jan 1982, Jackes (CBG,L,NSW,PERTH); 37 km N of Geraldton, 28°34'S, 114°37'E, Hnatiuk 760377(PERTH); 1.1 miles [1.8 km] N of Mingenew, Mar 1968, Carr 352 (K,PERTH).

Specimens from 35 localities examined.

Distribution and habitat: This species is found in the Geraldton area of Western Australia extending north to the Murchison River and south to the Irwin River. Here it is found in woodlands on a variety of soil types but chiefly on sand or loam.

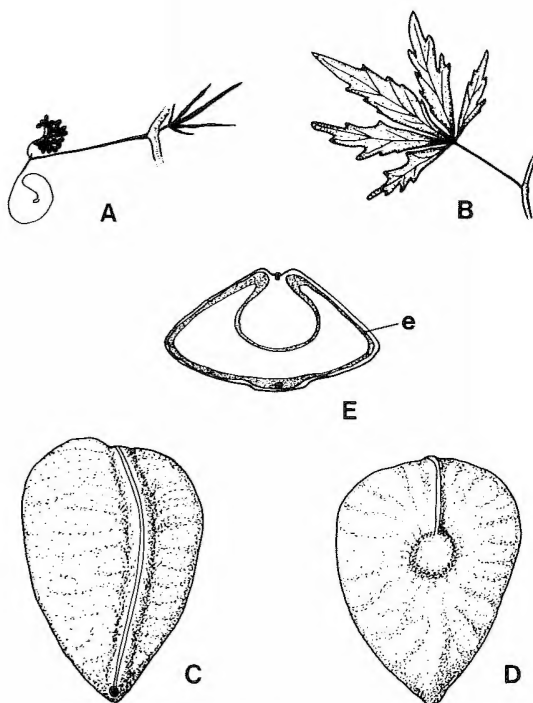


Fig. 1. *Clematocissus angustissima*: A. young leaf and inflorescence $\times 0.5$. B. leaf $\times 0.5$. C. seed, ventral surface showing position of raphe $\times 5$. D. seed, dorsal surface showing position and shape of perichalaza $\times 5$. E. median T.S. of mature seed $\times 6$ (e – lignified endotesta).

Phenology: Flowering mainly late summer and autumn; fruits mature autumn to late spring.

Notes and observations: Superficially this summer deciduous species resembles the partially or totally winter deciduous eastern species *Cissus opaca* F. Muell. The obvious distinguishing features are the dense congested inflorescence, the different shape of the endotesta and the pattern of formation of the tubers. A good description and illustration of the tubers are given by Pate and Dixon (1982). Leaf shape and size are highly variable.

Reference

PATE, J.S. & DIXON, K.W. (1982). Tuberous, Cormous and Bulbous Plants. Nedlands: University of Western Australia Press.

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